UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4
ATLANTA FEDERAL CENTER
61 FORSYTH STREET, SW
ATLANTA, GEORGIA 30303-8909

IN THE MATTER OF:

U.S. Department of the Army	)	**Demonstration Approval for**
Bechtel Parsons Blue Grass	)	**Storage and Treatment of**
Blue Grass Chemical Agent-Destruction	)	**Polychlorinated Biphenyl (PCB)**
Pilot Plant (BGCAPP)	)	**Bulk Product Wastes**
431 Battlefield Memorial Highway	)	**40 CFR §§ 761.60(e) and**
Richmond, KY 40475-5060	)	**761.62(c)**

AUTHORITY

This Approval for storage and treatment of polychlorinated hiphenyl (PCB) waste is issued to the United States Department of the Army (USDOA) and Bechtel Parsons Blue Grass (BPBG) for the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP) pursuant to Section 6(e) of the Toxic Suhstances Control Act (TSCA), 15 U.S.C. § 2605(e), and the federal regulations promulgated thereunder at 40 CFR Part 761. Section 6(e)(1) of TSCA requires that the U.S. Environmental Protection Agency promulgate rules for the disposal of PCBs. The rules for PCB alternate storage of PCB waste is codified at 40 CFR § 761.62(c) "Disposal of PCB Bulk Product Waste". The rules for treatment of PCBs using an alternate technology is codified at 40 CFR § 761.60(e) "Disposal Requirements."

BACKGROUND

The BGCAPP hazardous waste management facility is currently being constructed at the Blue Grass Army Depot in Richmond, Kentucky under a Resource Conservation and Recovery Act (RCRA) Research, Development and Demonstration (RD&D) Permit (KY8-213-820-105) issued by the Kentucky Division of Waste Management (KDWM). BPBG (Operator) and USDOA (Owner) submitted to the EPA Region 4 an application requesting a PCB Approval (Application) for an alternative method of disposal for treatment of the shipping and firing tubes (SFTs) and other waste generated during chemical treatment of the leaking rockets (leakers). Leakers are chemical rockets in which air

monitoring or visual inspection has detected chemical agent outside of the rocket warhead designed to contain the chemical warfare agents (i.e., nerve agents GB and VX). PCBs are present in the materials of construction of the SFTs at varying levels. The USDOA and EPA have agreed that the mean PCB concentration in the SFT material exceeds 50 parts per million (ppm) and that the SFTs are regulated for disposal as PCB bulk product waste. The Leakers have been in storage for several years under a National PCB Approval for the alternate storage of PCB bulk product waste.

The SFTs contain chemical agent-filled rockets that are identified as either non-leaking or leaking. The BGCAPP process cuts the non-leaking rockets, removes the warhead portion of the SFT, and removes the rocket motor with the SFT prior to chemical warfare agent treatment at the BGCAPP facility. The chemical agent from the non-leaking warhead is drained and processed in the agent neutralization reactors (ANRs) to destroy the chemical warfare agent; the warhead is thermally treated to destroy residual agent contamination. The SFT segments for both the warhead and rocket motors, removed from these non-leaking rockets, will be transported to off-site permitted treatment and/or disposal facilities. These off-site facilities must comply with TSCA and RCRA environmental regulatory requirements for the treatment and disposal of the SFTs.

Rockets identified as leaking one of the chemical warfare agents pose unique hazards and risks to workers, the public, and the environment because the leaking rockets and the SFTs must be assumed to be contaminated with chemical warfare agent. To protect against these hazards and risks, treatment of the leakers begins without removing the SFTs. The agent is drained from the warhead. Then the rockets, with the SFTs still in place, are cut into segments (rocket motors, warheads, and tailfin assemblies) that are placed into the energetics batch hydrolyzers (EBHs). Treatment of the segments in the EBHs, and subsequent treatment of the liquid waste from the EBHs in energetic neutralization reactors (ENRs), destroys the residual chemical warfare agent, explosives, and propellant. The solid residue from the leakers (i.e., SFT segments and other solids) leaving the EBHs undergoes treatment (at 1000°F for a minimum of 15 minutes per Department of Army Pamphlet 385-61, Toxic Chemical Agent Safety Standards) in the metal parts treaters (MPTs) to decontaminate and remove any residual chemical warfare agent. The MPT is considered an alternate treatment method in the PCB regulations under 40 CFR 761.60(e). As a result of this alternate treatment process, partial PCB desorption from the SFTs is expected to occur. The off-gas treatment system (OTM), which includes the thermal oxidizer (TOX), removes contaminants from the air emissions leaving the MPTs. The TOX, followed by a quick quench

(to minimize dioxin/furan formation), destroys desorbed PCBs. Ash and other solids in the air stream will be removed by other treatment units in the OTM to include: MPT cyclone, venturi, scrubber tower, and filter. The heating, ventilating, and air-conditioning (HVAC) filtration units (i.e., consisting of a pre-filter, a high-efficiency particulate air [HEPA] filter, six carbon beds, and another HEPA filter) provide final polishing of the air stream prior to its release to the environment. During the treatment of the SFTs, residues from the OTM will be sampled and analyzed for PCBs and managed in accordance with TSCA PCB regulations.

The movement of the chemical rockets out of their current storage area to the BGCAPP requires an alternate permitted storage area. The Commonwealth of Kentucky has permitted BGCAPP, under RCRA, to store and treat chemical munitions. BGCAPP will use the facilities designed and permitted for container storage of RCRA wastes to manage the SFTs in compliance with TSCA PCB requirements. The storage of these SFTs at BGCAPP shall comply with 40 CFR § 761.62(c), which allows storage of PCB Bulk Product wastes.

FINDINGS

The EPA has reviewed the BPBG and USDOA application for the BGCAPP and has determined that the storage and treatment of PCB bulk product waste in accordance with the conditions of this Approval and Commonwealth and local operating permits, will not pose an unreasonable risk of injury to human health or the environment.

APPROVAL

Approval is hereby granted to BPBG and USDOA for the storage of PCB bulk product waste and use of an alternative treatment method for PCB waste at the BGCAPP (EPA ID No. KY8 213 820 105), Richmond, Kentucky, subject to the Approval Conditions stated herein, and based on the information described in the approved application.

This Approval shall become effective on the date of signature and shall expire ten years from the date of signature, unless revoked, suspended, or terminated in accordance with the Approval Conditions stated herein. This Approval does not relieve BPBG or USDOA from compliance with all applicable

federal, state and local regulatory requirements, including the federal PCB regulations at 40 CFR Part 761, and any amendments or revisions thereto.

Date

G. Alan Farmer
Director
Resource Conservation and Restoration Division

Definition of Abbreviations

ANR	Agent Neutralization Reactor
BGAD	Blue Grass Army Depot
BGCA	Blue Grass Chemical Activity
BGCAPP	Blue Grass Chemical Agent-Destruction Pilot Plant
BPBG	Bechtel Parsons Blue Grass
CAA	Clean Air Act
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act
CFR	Code of Federal Regulations
EBH	energetics batch hydrolyzer
ENR	energetics neutralization reactor
EONC	enhanced on-site container
EPA	Environmental Protection Agency
GB	nerve agent sarin, isopropyl methylphosphonofluoridate
HEPA	high-efficiency particulate air (filter)
HVAC	heating, ventilating, and air-conditioning
JV	joint venture
KDWM	Kentucky Division of Waste Management
MDB	munitions demilitarization building
MPT	metal parts treater
NRC	National Response Center
OTM	off-gas treatment system (for MPT/ANS/ENS)
PCB	polychlorinated biphenyl
ppm	parts per million
QAPP	Quality Assurance Project Plan
RCRA	Resource Conservation and Recovery Act
RCRD	Resource Conservation and Restoration Division
RD&D	research, development, and demonstration
RQ	reportable quantity
SFT	shipping and firing tube
TOX	thermal oxidizer
TSCA	Toxic Substances Control Act
TSDF	RCRA Permitted Treatment, Storage, or Disposal Facility
U.S.	United States
U.S.C.	United States Code
VX	nerve agent, O-ethyl S-(2-diisopropylaminoethyl) methylphosphonothiolate

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DEMONSTRATION APPROVAL CONDITIONS
For
Storage and Treatment of Polychlorinated Biphenyl (PCB) Wastes Potentially Contaminated with the Nerve Agents (GB and VX) at the Blue Grass Chemical Agent-Destruction Pilot Plant (BGCAPP)
Richmond, KY 40475
EPA ID No: KY8-213-820-105

I. STANDARD CONDITIONS

A. Effect of Approval

1. BGCAPP may store PCB waste in accordance with these Approval Conditions and the federal PCB regulations at 40 CFR Part 761. Any storage of PCB wastes not authorized in this Approval is prohibited.

2. Issuance of this Approval does not convey property rights of any part or any exclusive privilege, nor does it authorize any injury to persons or property, any invasion of other private rights or any infringement of state or local laws or regulations.

3. Compliance with these Approval Conditions does not establish a defense for any other law that provides protection from any unreasonable risk to public health and the environment, including the federal PCB regulations at 40 CFR Part 761.

4. This Approval does not relieve BPBG or USDOA from compliance with all applicable federal, state and local regulatory requirements, including the federal PCB regulations at 40 CFR Part 761.

B. Severability

The provisions of this Approval are severable, and if any provision of this Approval or if the application of any provision of this Approval is held invalid, the remainder of this Approval shall not be affected.

C. Compliance

1. BPBG and USDOA must comply with and operate in accordance with the provisions of the federal PCB regulations at 40 CFR Part 761 and with the Approval Conditions stated herein.

2. These Approval Conditions are based on the facts, representations and certifications provided by BPBG and USDOA in its approved application. In the event that these Approval Conditions are inconsistent with the approved application, BPBG and USDOA must abide by the Approval Conditions stated herein.

D. Suspension/Revocation

1. Departure from these Approval Conditions, the approved application or approved modification(s) to this Approval, or the federal PCB regulations without prior written approval by the EPA may result in the immediate revocation, suspension, and/or modification of this Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

2. Any misrepresentation or omission of any material fact in the facility application or in any records or reports may result in the EPA's revocation, suspension, and/or modification of this Approval, in addition to any other legal or equitable relief or remedy the EPA may choose to pursue.

3. This Approval may be suspended or revoked at any time by the EPA when it has reason to believe that the continued operation of this facility presents an unreasonable risk to human health or the environment.

E. Expiration and Continuation

1. This Approval to store, treat, and dispose of PCB bulk product wastes and PCB wastes shall expire ten years from the date of the EPA's issuance of this Approval.

2. This Approval and its Conditions herein shall remain in effect beyond the Approval expiration date if BPBG and USDOA have submitted a timely, complete, and adequate notice of intent to continue the Approval and, through no fault of BPBG or USDOA, the EPA has not issued an Approval renewal.

F. Renewal

1. To continue the storage, treatment, and disposal of PCB bulk product wastes and PCB wastes granted by this Approval after the expiration date of this Approval, BPBG and USDOA must notify the EPA by written notice of its intention to continue the Approval at least 180 days, but not more than 270 days, prior to the expiration date of this Approval.

2. The EPA may require BPBG and USDOA to submit additional information in connection with the renewal of this Approval. The EPA shall review the submitted information and determine if this Approval is to be renewed.

G. Modification

1. BPBG and USDOA shall notify the EPA in writing of any intended modification of this Approval or the approved BGCAPP application.

2. A "major modification" is defined as any change to the storage areas, the maximum PCB storage inventory, treatment process and equipment (e.g., MPT, OTM, and EBH), the closure plan, or any other changes which affect overall performance or environmental

impact of the facility. A major modification to this Approval or the final application shall be made only upon written approval of the Resource Conservation and Restoration Division Director of EPA, Region 4.

3. A "minor modification" is defined as an administrative or informational change which may include: correction of typographical errors; changes to conform to revised Agency guidance or regulations; changes in procedures, operational conditions, and equipment or processes; or any other change by the Agency or BPBG or USDOA which does not affect overall performance or environmental impact. A minor modification to this Approval or the application may be implemented upon the written notification of U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division.

H. Entry and Inspection

BPBG and USDOA shall allow the EPA authorized representative(s), at reasonable times, to:

1. Inspect BGCAPP facility to determine compliance with this Approval or the federal PCB regulations

2. Inspect any records that must be kept relative to this Approval or the federal PCB regulations

3. Collect sample(s) for the purpose of assessing compliance with this Approval or the federal PCB regulations

4. Inspect BGCAPP activities relative to this Approval or the federal PCB regulations

I. Change in Ownership

1. The EPA shall recognize the transfer of this Approval to a new owner/operator if the following conditions are met:

   a. This Approval can be transferred to a successor U.S. Army prime contractor upon expiration of BPBG's contract provided that USDOA (owner) requests in writing, at least 30 days in advance of the contract expiration, transfer of the approval. The transfer request letter must be accompanied by a letter from the successor contractor that certifies in writing that the contractor agrees to fully comply with all Conditions of this Approval issued to USDOA and BPBG and acknowledges that failure to do so shall be considered a violation of the Approval which may result in enforcement action.

   b. The transferee resolves any deficiencies the EPA has identified in its application

   c. The transferee submits a signed and notarized affidavit which states that the transferee shall comply with all the terms and Conditions of this Approval.

2. Failure by the transferee to comply with any of the provisions of Condition I.I.1 shall render this Approval null and void.

J. Inapplicability of Paperwork Reduction Act

Any and all information required to be maintained or submitted pursuant to this Approval is not subject to the Paperwork Reduction Act of 1980, 44 U.S.C. 3501 et seq., because it is information collected by the EPA from a specific individual or entity for the purpose of ensuring compliance with this Approval.

II. GENERAL FACILITY CONDITIONS

A. Project Organization

BPBG and USDOA shall provide a current organization chart to U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division not less than 30 days prior to beginning the treatment of the rocket leakers. BPBG and USDOA shall submit a quarterly report that includes milestones and projections for operations. The quarterly report must be submitted to the Region 4 EPA, effective the first date after signature, on January 15, April 15, July 15, and October 15. The EPA shall notify BPBG and USDOA in writing when the reports are no longer required.

B. Operation of Facility

BPBG and USDOA must maintain and operate the facility to prevent fire, explosion, or releases of PCBs to air, soil, ground water, or surface water. Alternatives for management of the energetic hydrolysate (i.e., a liquid waste generated during treatment of rocket leakers that may contain $\geq$ 2 ppm PCBs) shall include either:

1. Treatment of energetic hydrolysate using the treatment processes in the entire plant (munitions demilitarization building [MDB], hydrolysate storage area [HSA], and supercritical water oxidation process building [SPB]); or

2. Treatment the energetic hydrolysate in the MDB and then discharging the energetic hydrolysate to a tanker truck without further treatment in the BGCAPP facility. The energetic hydrolysate shall then be sent off site for further PCB treatment and/or disposal. Any liquid PCB waste $\geq$ 2 ppm shall be disposed of in an approved PCB incinerator or an approved PCB alternate technology. There shall be no pH re-adjustments for the alkaline hydrolysate. The EPA shall not be responsible for any damages from treatment and/or disposal of the hydrolysate.

3. Should the decision to treat the energetic hydrolysate in the SPB be made, BPBG and USDOA must submit a modification to the Approval at least 1 year in advance of processing the energetic hydrolysate. The modification must include the detailed process description of the super critical water oxidation treatment.

4. At least 30 days prior to receiving any SFTs holding agent-filled rockets, BPBG and USDOA shall prepare and submit an Environmental Protection Agency Form 7710-53 to the U.S. Environmental Protection Agency, Document Control Officer (5305P), Office of Solid Waste, 1200 Pennsylvania Ave., N.W., Washington, DC 20460-0001. Notification should also be provided to EPA Region 4 using the form provided in Appendix A.

C. Notification of Subcontract Treatment/Disposal Facilities

BPBG and USDOA shall provide a list of the subcontract treatment/disposal facilities that have agreed to accept SFTs or any other TSCA wastes either from the non-leaking or leaking rockets to U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division as a Condition of this Approval. This notification shall be provided at least 30 days prior to the start of agent operations.

D. Demonstration Test Plan

The Demonstration Test Plan shall be developed and provided to U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division for approval a minimum of 12 months prior to beginning treatment of the GB rocket leakers. The Demonstration Test Plan shall consist of three components: a Waste Test Plan, an Air Emission Test Plan, and a Quality Assurance Project Plan (QAPP).

1. Waste Test Plan

   a. The Waste Test Plan shall be developed to characterize the wastes generated during the treatment of the approximately 100 known GB rocket leakers. Table 1 identifies the number and locations of waste stream samples to be collected during the treatment of the rocket leakers.

   b. Gas chromatography shall be used for chemical analysis of PCBs in accordance with 40 CFR § 761.60(g)(1)(iii).

   c. Polychlorinated biphenyl concentrations for liquid, non-liquid, and multi-phasic wastes shall be determined and reported as specified in 40 CFR § 761.1(b). EPA Method 608, "Organochlorine Pesticides and PCBs" per 40 CFR Part 136, Appendix A;" or EPA Method 8082A, Polychlorinated Biphenyls (PCBs) by Capillary Column Gas Chromatography" using "SW-846 OSW Test Methods for Evaluating Solid Waste". The EPA Method SW-846, Method 3540C shall be used to perform extractions for all solid samples prior to analysis by the selected analytical method.

   d. A minimum of 1 waste sample shall be collected from each waste stream during the processing of the first four energetic hydrolysate batches for an approximate total of 20 waste samples collected. In addition, the exhaust air stream from BGCAPP shall be sampled for 4 periods during the treatment of the rocket leakers.

Table 1 – NUMBERS AND LOCATIONS FOR WASTE SAMPLES

Sample	Location	Number of Samples
Energetic Hydrolysate (liquid)	Flow from Energetic Neutralization Reactor	4*
Scrubber Tower (liquid): Off-gas Treatment Effluent/Energetics Batch Hydrolyzer/Energetics Neutralization System	Sample from Scrubber Fluids	4*
Scrubber Tower (liquid): Off-gas Treatment System/Metal Parts Treater/Agent Neutralization System	Sample from Scrubber Fluids	4*
Metal Parts Treater Cyclone (solid)	Solids Sample	4*
Metal Parts Treater (solids/residues)	Residue in Trays after Removal from Metal Parts Treater	4*

*A sample from each processing unit or system shall be collected during leaker batch treatment (nominally about 4 separate batches based on 100 known GB rocket leakers). Criteria used to determine disposal options for these liquid and solid samples shall be < 2 ppm PCBs for liquids [§ 761.79] and < 50 ppm PCBs for solids [§ 761.62].

2. Air Emission Test Plan

   a. The Air Emission Test Plan shall be prepared and submitted as part of the Demonstration Test Plan. The location for the air emission testing shall he the ventilation ductwork leading to the HVAC stacks, after the HVAC filtration units. These sampling locations (i.e., one for each HVAC stack) are in a long run of horizontal ductwork that can be reached and sampled from a platform constructed below this ductwork.

   b. The sample collection methods, frequency, containers, and number of samples for air emission sampling during the rocket leaker treatment are provided in Table 2. In addition, a number of EPA Methods shall be used during this testing, to include:

      i. EPA Methods 1A and 2C (M1A/2C) shall be used to confirm traverse point locations are appropriate for sampling and to measure exhaust gas velocities at each of the traverses, respectively.

      ii. During each test run, EPA Method 3B (M3B) shall be used for the collection and analysis of integrated exhaust gas samples collected in Tedlar® bags and analyzed for O_2 and CO_2 using the Orsat method. Multi-point integrated Tedlar® bag samples shall be collected with an isokinetic sampling train during each run. If a continuous emission monitoring system is also measuring O_2 and CO_2, the CEMS data must also be included during the sample collection period.

      iii. A separate EPA Method 4 (M4) train shall not be run; but moisture shall be determined in accordance with EPA Method 4. The principle of this method is to remove the moisture from the sample stream and determine moisture either volumetrically or gravimetrically.

   c. The air contaminants that shall be analyzed for hydrogen chloride, particulate matter,

metals, volatile organic compounds, semi-volatile organic compounds, PCBs, dioxins, and furans. Expected air emission analytical methods are summarized in Table 3. However, with EPA concurrence, the listed analytical methods may be modified due to the analytical laboratory chosen or due to changes in the EPA analytical methods.

d. The EPA reserves the right to determine if further sampling and monitoring shall be required. The EPA shall discuss the additional sampling and monitoring with BPBG and USDOA.

--SEE TABLE 2 ON NEXT PAGE--

Table 2 – Sample Collection Methods, Frequency, Containers, and Number of Samples for Air Emission Testing

Sample Name	Analysis	Type of Container(s)(1)	Frequency	Samples (2)
M0010 Sampling Trains (2) Fronthalf composite: Particulate filter, filter holder, and probe solvent rinses	Semi-volatile PIC/TIC Semi-volatile and Non-volatile Unspeciated Mass Total PCBs (sum 209 congeners)	*Petri dish, 250mL amber glass*	Collect > 3 m^3 at ~ 0.75 m^3/hr	4
Backhalf composite: XAD-2 *resin tube, filter holder, and* coil condenser solvent rinses		XAD-2 resin tubes, 250mL amber glass		
Impinger composite and glassware solvent rinses		1 gallon or multiple 1-L amber glass		
M0023A Sampling Train Fronthalf composite: Particulate filter, filter holder, and probe solvent rinses	PCDD/PCDF congeners	Petri dish, 250mL amber glass	Collect > 3 m^3 at ~ 0.75 m^3/hr	4
Backhalf composite: XAD-2 resin tube, filter holder, and coil condenser solvent rinses		*XAD-2 resin tubes,* 250mL amber glass		
M26A Sampling Train Particulate filter and acetone probe rinse	PM	Petri dish, 250mL amber glass	Collect > 3 m^3 at ~ 0.75 m^3/hr	4
0.1N H_2SO_4 impinger composite	HCl	1L HDPE		
0.1N NaOH impinger *composite*	Cl_2	500-mL HDPE		
M29 Sampling Train Filter and HNO_3 probe rinse	Metals	Petri dish, 120mL HDPE	*Collect* > 3 m^3 *at* ~ 0.75 m^3/hr	4
5% HNO_3/10% H_2O_2 impinger composite		1L HDPE		
Empty impinger	Mercury Only	120-mL HDPE		
4% $KMnO_4$/10% H_2SO_4 impinger composite and DI rinses		500-mL amber glass with vented lid		
8N HCl rinsate		250mL amber glass		
M0031 Sampling Train Two (2) Tenax® resin tubes and one (1) Anasorb® tube per set	Volatile PIC/TIC	Resin tubes	Collect 4 resin tube sets, 20 L per set	16 pairs
Condensate		*40-mL VOA vials*	*End of test run*	4
M0040 Sampling Train	Volatile Unspeciated Mass	Tedlar® bags	2 Tedlar® bags per test run	8
		20-mL or 40-mL VOA vials	Condensate per Tedlar® bag	

Footnotes:
(1) Alternate container sizes may be used as required.
(2) Four test runs shall be conducted, but only three shall be analyzed. A fourth run shall be archived in case of sample loss or breakage.

Acronyms/Abbreviations:

~	approximate	L	Liter	HDPE	high density polyethylene	M0040	SW846 Method 0040
>	greater than	L/min	liters per minute	HNO3	nitric acid	M3B	EPA Method 3B
%	percent	M0010	SW846 Method 0010	H2O2	hydrogen peroxide	M26A	EPA Method 26A
CO2	carbon dioxide	M0023A	SW846 Method 0023A	H2SO4	sulfuric acid	M29	EPA Method 29
DI	deionized	M0031	SW846 Method 0031	KMnO4	potassium permanganate	m3	cubic meter

Table 3 – Summary of Analytical Methods and Procedures

Sample Name	Sample Matrix	Analysis	Analysis Method
M0010	Moisture	Exhaust gas	EPA Method 4
	Semi-volatile PIC/TIC	Front-half composite	SW-846 Method 8270
		Back-half composite	
		Impinger composite and glassware solvent rinses	
	Total Semi-volatile and Non-volatile Organics	Front-half composite	SW-846 Method 3542 and EPA/600/R-96/033
		Back-half composite	
		Impinger composite and glassware solvent rinses	
	Total PCBs (sum 209 congeners)	Front-half composite	SW846 Method 8082
		Back-half composite	
		Impinger composite and glassware solvent rinses	
M0023A	Moisture	Exhaust gas	EPA Method 4
	PCDD/PCDF	Front-half composite	SW-846 Method 8290
		Back-half composite	
M0031	Volatile PICs/TICs	TX and anasorb resins	SW-846 Method 8260
		Condensate	SW-846 Methods 0030/8260/5041
M0040	Volatile Unspeciated Mass	Whole air exhaust gas	EPA/600/R-96/033
		Condensate	
M26A	Moisture	Exhaust gas	EPA Method 4
	HCl/Cl_2	Impinger solutions	M26A
	PM	Filter	EPA Method 5
M29	Moisture	Exhaust gas	EPA Method 4
	Metals	Impinger solutions, particulate filters, and residues	M29 and SW-846 Methods 6010C/6020/7470/7471A

Abbreviations:

Cl2	chlorine
EPA	Environmental Protection Agency
HCl	hydrogen chloride
NaOH	sodium hydroxide
PCDD	polychlorinated dibenzo-p-dioxin
PCDF	polychlorinated dibenzofuran
PIC	product of incomplete combustion
PM	particulate matter
TIC	tentatively identified compound
TX	tenax
US	United States

3. Quality Assurance Project Plan (QAPP)

   a. The last component of the Demonstration Test Plan shall be the QAPP, which shall address the required quality assurance requirements for both the Waste Test Plan and the Air Emission Test Plan. This plan shall be prepared in accordance with EPA Region 4 guidance (Region 4 QAPP Review Checklist, dated March 29, 2007) and submitted as a component of the Demonstration Test Plan.

   b. The Demonstration Test Plan shall be submitted to the U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division at least one year prior to the treatment of any rocket leakers.

c. The Air Emission Test Plan results shall be used to verify atmospheric releases are insignificant during the rocket leaker treatment by sampling at the HVAC stacks.

d. Final determination of waste characteristics and air emissions shall be based on results of testing as agreed to by EPA Region 4.

e. BPBG and USDOA shall provide a list of the subcontract treatment/disposal facilities that have agreed to accept SFTs and any other TSCA wastes either from the non-leaking or leaking rockets to U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division as a Condition of this Approval. This notification shall be provided at least 30 days prior to the start of agent operations.

E. Security

All PCB storage areas at BGCAPP shall be secured (e.g., fence, alarm system, or barricades) at all times (e.g. gates closed) to restrict access by unauthorized persons.

F. Personnel Training

1. BPBG and USDOA shall ensure through documented training that the personnel directly involved with the handling or disposal of PCBs are demonstrably familiar with the requirements of this Approval and with the regulatory requirements under 40 CFR Part 761 as these relate to specific job tasks. Training for personnel directly involved in the operation and maintenance of the PCB treatment and storage equipment and areas must include, at a minimum:

   a. The types of PCB waste that may be stored;
   b. Safe PCB sampling and handling procedures;
   c. The location of spill response equipment and proper usage techniques;
   d. The health and environmental hazards that PCBs pose to the individuals/employees and the environment;
   e. Basic recordkeeping requirements under this Approval and the location of records;
   f. Inspection requirements, including use of facility-specific inspection forms;
   g. Notification requirements;
   h. Disposal requirements for regulated PCB wastes generated during the operation of the PCB storage area or disposal activities;
   i. Reporting requirements; and
   j. Training for new employees involved with managing PCBs shall be completed prior to working without direct supervision.

G. Safety

1. BPBG and USDOA shall comply with all applicable safety and health standards, as required by federal, state, and local regulations and ordinances. The federal Occupational Safety and Health Administration (OSHA) requirements can be found at http://www.oshagov.

2. Injuries or illnesses directly related to PCB exposure, or resulting from spills or handling of PCBs during the Approval period, must be reported to the EPA Region 4 in writing. The report must include a description of the incident and the corrective measures or treatment provided. Within five days of completing the corrective measures and/or treatment, BPBG and USDOA must submit the report to:

   U.S. Environmental Protection Agency, Region 4
   Terri Crosby-Vega
   Materials and Waste Management Branch
   Resource Conservation and Restoration Division
   Sam Nunn Atlanta Federal Center
   61 Forsyth Street, S.W.
   Atlanta, Georgia 30303-8960

H. Spills

1. If, in the course of operations, there is a spill or release of one pound or more of pure PCBs [a reportable quantity (RQ)] as defined under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR Part 302, "Designation, Reportable Quantities; and Notification," BPBG and USDOA must notify the National Response Center (NRC) at (800) 424-8802. Releases or spills of ten pounds or more of pure PCBs and PCB releases or spills in any amount which pose a potential for significant exposure to humans, animals, or the environment, shall be reported to the EPA Region 4 at the 24-hour spill reporting number (404) 562-8700. Further, for any spills or releases of PCBs greater than or equal to the RQ that leave the facility and enter the environment through any conveyance or means, BPBG and USDOA may be required to notify not only the NRC, but also the Local Emergency Planning Committee and the State Emergency Response Commission as required by Section 304 of the Emergency Planning and Community Right to Know Act (EPCRA), 42 U.S.C. § 11004.

2. A report containing a written summary about a reportable spill incident, as identified in the preceding paragraph, must be submitted to the EPA within 5 business days following the incident. When the EPA requests a detailed report on the incident, this report shall be submitted to the EPA within 15 business days following the request. The detailed report shall include, but not be limited to, a description of the spill, cleanup activities, and changes in the BPBG and/or USDOA operations to prevent such spills in the future.

3. Cleanup of PCB spills must begin as soon as reasonably possible pursuant to 40 CFR Part 761, Subpart G, and PCB Spill Cleanup Policy. However, due to the nature of the agent demilitarization process and inaccessibility of operations, a release of PCB waste in any area that requires Level A personal protective equipment shall not be considered a

spill subject to 40 CFR Part 761, Subpart G. All spills and releases in the processing area of the agent demilitarization shall be addressed during closure activities.

4. Any debris or solid wastes generated as a result of clean up or decontamination of a PCB spill or release shall be disposed of in a facility approved to dispose of PCBs as required by *40 CFR § 761.60.*

I. Emergency Procedures

BPBG and USDOA shall, without delay, implement appropriate measures whenever there is a fire or any PCB-related emergency which could threaten human health or the environment. In such an emergency, BPBG and USDOA must notify the EPA Region 4 at (404) 562-9900. For spills of PCBs that must be reported, notification shall be made to the 24-hour spill reporting telephone number (404) 562-8705, operated by EPA Region 4.

J. Recordkeeping and Reporting

1. A copy of this Approval, all employees training records, the Spill Prevention Control and Countermeasure Plan, and records documenting sampling and analytical procedures used to determine PCB concentrations, shall be kept on site.
2. All reports and other information requested by the EPA shall contain a certification as defined in 40 CFR § 761.3 and be signed by an authorized representative of BPBG and USDOA.
3. The documents required to be submitted by this Approval at a later date are identified in Appendix B. All documents shall contain a certification as defined in 40 CFR § 761.3 and be signed by an authorized representative of BPBG and USDOA.
4. The list of subcontracted RCRA permitted treatment, storage, or disposal facilities (TSDFs) accepting wastes from the non-leaking or leaking rockets, as described in Appendix B, shall be submitted for approval by the EPA at least 30 days in advance of starting treatment of the rockets. The storage and final disposition of the hydrolysate shall be described in this document.
5. Facility-specific inspections required by Condition III.I of this Approval shall be recorded in a facility-specific inspection log or summary. Records of inspections, training, maintenance, cleanup, and disposal must be maintained at the facility in accordance with this Approval and 40 CFR § 761.180(a) and (b). All records and/or supporting documentation required by this Approval must be immediately made available to the EPA upon request during regular business hours. Inspection records must be kept three years from the date of the inspection.
6. All other records and documents, including annual records, annual document logs, and annual reports shall be prepared and maintained as required by 40 CFR § 761.180(b). The annual report shall include a certification statement as defined in 40 CFR § 761.3.
7. All records required by this Approval or the federal PCB regulations at 40 CFR Part 761 during the course of any unresolved enforcement action regarding the facility or upon request by the EPA shall be retained, notwithstanding any other provision of this Approval

or the federal PCB regulations at 40 CFR Part 761.

K. Closure Requirements

1. A facility-specific Closure Plan shall be prepared and maintained in accordance with 40 CFR § 761.65respectively. Areas in which the SFTs and wastes (e.g., the energetic hydrolysate if ≥ 2 ppm PCBs or solid residues from the OTM cyclone if ≥ 50 ppm PCBs) are treated or stored shall be included in the Closure Plan. This treatment equipment shall be cleaned by flushing with: water, sodium hydroxide solution, or non-PCB contaminated energetic hydrolysate. Operation of the MDB treatment equipment can resume when analytical results < 2 ppm PCBs without further TSCA closure requirements until final RCRA/TSCA closure of the MDB begins.

2. The RCRA Closure Plan shall include TSCA wipe and rinsate sampling, as appropriate, (i.e., to include number of samples) for each of the treatment or storage areas used for PCB Bulk Product Waste management or other PCB wastes. Wipe samples shall be in accordance with the procedures outlined in 761.123.

3. BPBG and USDOA shall submit for approval the RCRA Closure Plan (including details of the TSCA closure) to U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division six months prior to initiating closure of the BGCAPP.

4. A copy of the current Closure Plan shall be retained at the facility. The Closure Plan and associated documentation shall be available to EPA inspectors for review, upon request.

III. PCB DISPOSAL, STORAGE, AND TREATMENT CONDITIONS

A. Approved PCB Storage Areas

The PCB wastes (i.e., consisting of PCB Bulk Product Wastes – SFTs) shall be stored as described in the RCRA Permit Application. The RCRA storage areas that would also be used for PCB hulk product wastes include the Container Handling Building, two Box Transfer Area Rooms, and the Motor Packing and Shipping Rooms.

1. After the rockets are removed by the Blue Grass Chemical Activity (BGCA) from stockpile storage within BGAD, these rockets are transported to the Container Handling Building within enhanced on-site containers (EONCs). This huilding provides storage for a maximum of 52 EONCs with each holding up to a total of 30 rockets. Each rocket in the EONC is stored within an SFT. The EONCs provide secondary vapor and liquid containment and the rockets/SFTs are not removed from the EONC until processing hegins.

2. Treatment of the non-leaking rockets at BGCAPP involves the cutting of the SFT at a specific location between the warhead and the rocket motor, removal of the SFT segment covering the rocket warhead and cutting the warhead from the rocket motor. The SFT segment from around the warhead and the rocket motors within this SFT segment shall be

placed into wooden boxes. The boxes shall be monitored for agent, sealed, and stored in one of the two RCRA-permitted Box Transfer Rooms or one of the two RCRA-permitted Motor Shipping Rooms. The SFTs shall be transferred to a roll-off bin stored just outside the Box Transfer Rooms. When full, the roll-off bin shall be transferred to the Waste Transfer Station area temporarily prior to shipment off-site for disposal.

3. The total maximum number of SFTs for storage:
   a. Container Handling Building – 52 EONCs x 30 rockets/SFTs = 1,560 SFTs;
   b. 2 Box Transfer Rooms – 2 rooms x 8 Boxes/room x 30 rocket motor with SFTs per Box = 480 SFTs; and
   c. 2 (total) Motor Packing and Shipping Rooms – 2 rooms x 2 Boxes/room x 30 rocket motor with SFTs per Box = 120 SFTs
   d. Contingency of 10 extra Boxes distributed between the Box Transfer Rooms and the Motor Packing and Shipping Rooms in case of leakers or movement *logistical issues* = 300 SFTs.
   e. Two roll-off bins, 8 ft × 8 ft × 20 ft, containing approximately 2,500 SFT sections (4 ft long, 5 inches in diameter = 59% of intact SFT) per bin = 5,000 SFTs SFT sections.

4. Maximum pounds of PCB-containing materials (e.g., SFTs) stored in BGCAPP: intact SFTs = 1,560+480+120+300 = 2,460 SFTs × 13.7 pounds/SFT = 33,702 pounds of PCB containing materials; *partial SFTs = 5,000 SFTs × 0.59 × 13.7 pounds/SFT = 40,415 pounds* of PCB containing materials; total storage at BGCAPP of 74,117 pounds of PCB containing materials.

5. Following separation of the rocket motor/SFT from the warhead and removal of the chemical warfare agent from the rocket warheads, the rocket motor and SFTs (on the rocket motors and removed from the warhead segment) shall be transported off site (i.e., from BGCAPP). The purpose of this off-site transport is to send the propellant in the rocket motor and SFT segments for treatment/disposal in an EPA-approved and permitted facility that complies with TSCA and RCRA regulatory requirements. BPBG and USDOA shall provide a list of the subcontract treatment/disposal facilities that have agreed to accept SFTs and any other PCB wastes either from the non-leaking or leaking rockets to U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division as a Condition of this Approval. This notification shall be provided at least 30 days prior to the start of agent operations.

6. During the treatment of rocket leakers, the SFTs shall be treated in the BGCAPP processes as described in the application and the resulting PCB containing wastes shall be stored in a container or containers in the MPT treatment area. There may also be liquid and solid wastes produced during the treatment of the SFT segments in the EBHs, MPT, and OTM (e.g., liquid hydrolysate, dusts and particulate materials from OTM cyclone). All wastes generated as a part of this process shall be considered RCRA waste due to the application of the mixture and derived-from rules to these state-listed hazardous wastes (nerve agents). Laboratory analysis of these wastes shall be conducted during rocket leaker treatment and used to make PCB waste determinations. If analyses indicate that PCB wastes were

produced during the treatment of rocket leakers (i.e., ≥ 2 ppm PCBs for liquid wastes such as the energetic hydrolysate that contains PCBs and ≥ 50 ppm for solid wastes), these wastes shall be containerized in Department of Transportation (DOT) approved containers and stored in container storage areas permitted for RCRA waste. The total pounds of PCB Bulk Product Wastes treated during the treatment of the 100 known rocket leakers equals 100 SFTs x 13.7 pounds of PCB wastes/SFT = 1,370 pounds. However, it is understood that additional leakers discovered during rocket processing may increase this total.

B. Design Requirements of Storage Areas

The PCB storage unit shall be designed and maintained in accordance with the requirements at 40 CFR § 761.65(b)(l) and as specified in the approved application.

C. Maximum PCB Storage

The total number of SFTs that can be stored in the BGCAPP RCRA-approved storage areas = 1,560+480+120+300 = 2,460 SFTs x 13.7 pounds/SFT = 33,702 pounds of PCB containing materials, with 5,000 SFT sections with 40,415 pounds of PCB containing materials stored.

D. PCB Waste Types Authorized for Storage

1. As identified in the approved application, PCB wastes approved for storage are limited to PCB remediation waste (e.g., spill cleanup), PCB bulk product waste, PCB wastes generated incidental to BGCAPP agent treatment, and PCB waste generated in the on-site laboratory (e.g., PCB contaminated lab equipment, calibration agents, PPE). The RCRA permitted shall be used to store these wastes.

2. The waste streams identified in Condition III.D.l may include PCB bulk product wastes and other PCB wastes that are solely regulated for disposal under TSCA and PCB wastes regulated for disposal under both TSCA and RCRA.

E. Containers

Containers used for storage of PCB waste shall be limited to those container types authorized for PCB storage under 40 CFR § 761.65(c)(6) and the special EONCs used for transport and storage of nerve agent filled M55 rockets held in the SFTs.

F. Aisle Space Requirement

Aisle space within the storage area must be maintained at all times to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment. A minimum of 30 inches shall be provided between container rows and stacks.

G. Container Stacking

1. Containers may be stacked subject to the following limitations:

a. Larger containers shall not be stacked on top of smaller ones unless the weight of the upper container tier can be safely supported.
b. All containers, except 5 gallon containers, shall not be stacked more than 2 containers high.
c. Pallets (or plywood sheets) shall be used between container tiers when the stack height exceeds one container, except five gallon containers may be stacked up to three containers high, without pallets (or plywood sheets) between tiers.

2. Containers shall be stored in rows no more than two containers wide.

H. Management of PCB Bulk Product Wastes and Other PCB Wastes

1. Containers holding PCB bulk product wastes and other PCB wastes shall always be closed during storage, except when adding and removing contents.

2. PCB containers, PCB bulk product wastes or PCB wastes must not be opened, handled, or stored in a manner which may damage or cause the PCBs to leak or be released into the environment.

3. If any PCB container is leaking or is otherwise defective, BPBG and USDOA shall (within 24 hours) transfer the PCB waste to a container that is properly marked and structurally sound.

4. PCB containers containing PCB bulk product wastes or other PCB wastes shall be stored so that required PCB markings, labels, storage dates, and other identification information can be easily read by any inspector.

I. Inspection Requirements

1. All PCB bulk product waste or PCB waste in storage shall be inspected for leaks at least once every 30 days. Any leaking PCB bulk product wastes or other PCB wastes shall be transferred to a properly marked non-leaking container. Leaked or spilled materials shall be properly cleaned up in accordance with 40 CFR Part 761, Subpart G, PCB Spill Cleanup Policy, and the PCB-contaminated materials must be disposed of in accordance with 40 CFR § 761.60.

2. The EONCs and the condition of floor joints and curbing in the PCB storage areas identified in Condition III.A shall be inspected at least every 30 days. Any needed repairs noted during such inspections shall be made within 14 days of the inspection date unless a longer repair period is authorized by the EPA.

J. Marking and Dating Requirements

1. The approved PCB storage areas identified in Condition III.A of this Approval shall be marked as required by 40 CFR § 761.40(a)(10) at all external entrances allowing direct or indirect access to the PCB storage area. These markings shall be located on the door immediately adjacent to the entrance where the markings can be clearly seen at all times.

Large PCB markings shall also be posted immediately adjacent to all approved storage areas prior to PCB storage and must remain in place until the storage area is decontaminated in accordance with the approved facility closure plan.

2. PCB bulk product wastes/waste storage containers shall be marked in accordance with applicable requirements in 40 CFR § 761.40.

3. Containers for storage of PCB bulk product wastes or other PCB wastes shall be stored in accordance with RCRA hazardous waste container storage requirements and the RCRA Hazardous Waste Management Facility Permit [No. KY8-213-820-105] per 40 CFR § 761.65(b)(2)(iii). PCB waste storage shall be managed so that the PCB wastes can be located by the date stored or by the container's unique tracking number.

K. Waste Restrictions and Testing

The following requirements do not apply if the process residues are disposed of in EPA-approved facilities, including chemical waste landfills and Subtitle C landfills (for solid residues), or wastewater treatment facilities which are approved for PCB disposal of liquid residues.

1. The Demonstration Test includes a series of waste stream analyses to be performed during the treatment of rocket leakers. This testing shall be detailed in the Waste Test Plan and shall focus on laboratory analyses of PCBs, dioxins, and furans in both solid and liquid waste streams.

2. Representative samples of the waste streams produced from each 24-hour period must be collected and analyzed by gas chromatography for PCB concentrations. Any MPT and OTM ash or other non-aqueous waste discovered to contain equal to or greater than 50 ppm PCB must be disposed in accordance with 40 CFR § 761.62. These wastes must be stored in an appropriate manner until sent off site for final treatment and/or disposal.

3. Any solid or liquid material samples shall be tested by the on-site laboratory for agent contamination, if agent contamination is suspected, prior to any off-site, third-party PCB analysis.

4. PCB wastes shall be disposed of in an approved chemical waste landfill or other EPA approved TSCA facility as an alternative to sampling and analysis of waste streams for each 24-hour period. EPA Region 4 shall be notified and approve of all subcontract facilities used for disposal and/or additional treatment of PCB containing wastes.

L. Waste Treatment Process, Operating Conditions

The SFTs containing leaking chemical agent rockets shall be treated in one of the two MPTs and OTMs to destroy agent contamination. PCBs shall be at least partially desorbed from the SFTs incidental to the MPT treatment to decontaminate the SFTs. The air stream containing the desorbed PCBs (i.e., desorbed from the SFTs during agent decontamination in the MPT at $\geq$ 1,000°F) shall undergo further treatment in the thermal oxidation unit (i.e., 2012°F to 2372°F)

and other air pollution control devices (i.e., cyclones, scrubber recirculation trim cooler, venturi/scrubber tower, scrubber recirculation cooler, scrubber recirculation surge tank, venturi recirculation pump and spare, scrubber recirculation pump and spare, particulate filter and spare, blower and spare, and air re-heater) prior to entering the MDB HVAC filtration units for final emissions treatment. These filtration units contain medium and HEPA filters followed by carbon beds and final HEPA filters. The MPTs and OTMs shall operate as follows whenever PCBs are being treated.

1. There are approximately 100 known leakers in the GB rocket stockpile and no known leaking VX rockets. SFT feed rate shall be based on the capacity of the MPT and OTM. It is estimated that the time required for treatment of leakers shall be very short (e.g., 1 to 2 weeks) due to the relatively low number of SFTs that shall require treatment. The treatment rate (i.e., number of SFT segments that can be treated per MPT batch) shall be confirmed during the GB agent campaign under the authority of the RCRA RD&D Permit. The process includes up to about 48 SFTs in two batches or a maximum of less than approximately 0.48 pounds of PCBs per batch.

2. The MPT shall operate at temperatures sufficient to cause items within the chamber to reach $\geq$ 1000°F and the desorbed emissions from the MPT shall undergo further treatment in the thermal oxidation unit (i.e., operating temperature range: 2012°F to 2372°F) with a 2 second residence time before emissions enter the remaining OTM air pollution control devices. Operating temperatures of the MPT and OTM shall he verified during the GB agent campaign.

3. BPBG and USDOA shall comply with provisions of the permits issued by KDWM, including the RCRA Research, Development and Demonstration (RD&D) [No. KY8-213-820-105] and the Clean Air Act (CAA), Title V Air Permit [No. V-16-019]. The RCRA Permit and the CAA, Title V Permit both include the treatment of leaking nerve agent rockets; BPBG and USDOA shall also comply with the applicable conditions of these environmental permits.

4. The waste feed process is a batch process and not continuous. Regulation of tbe MPT (and the connected TOX) batch feed process shall be the most effective method of ensuring environmental protection. Whenever an upset condition occurs, the feed of subsequent batches into the MPT shall halt until the upset condition is remedied and operating conditions are returned to normal. After conditions are returned to normal, munitions processing can resume. Feed of waste materials to the MPT containing SFTs shall immediately be terminated if any of the following events occur:

    a. Interruption of the stack monitoring for agent as established for the RD&D/GB campaign;
    b. Failure of agent monitoring equipment;
    c. The OTM Exhaust Gas Excess Oxygen deviates from the operating range established during the RD&D/GB campaign; and
    d. The operation of the MPT (i.e., during treatment of SFTs to accomplish agent decontamination) deviates from its operating temperature range established during the

RD&D/GB campaign.

5. BPBG and USDOA shall develop a Demonstration Test Plan and submit it to U.S. Environmental Protection Agency, Region 4, Materials and Waste Management Branch, Resource Conservation and Restoration Division for approval. The Demonstration Test Plan shall be submitted at least 12 months prior to beginning treatment of the rocket leakers. The Demonstration Test Plan shall consist of 3 components: a Waste Test Plan, an Air Emission Test Plan, and a QAPP.

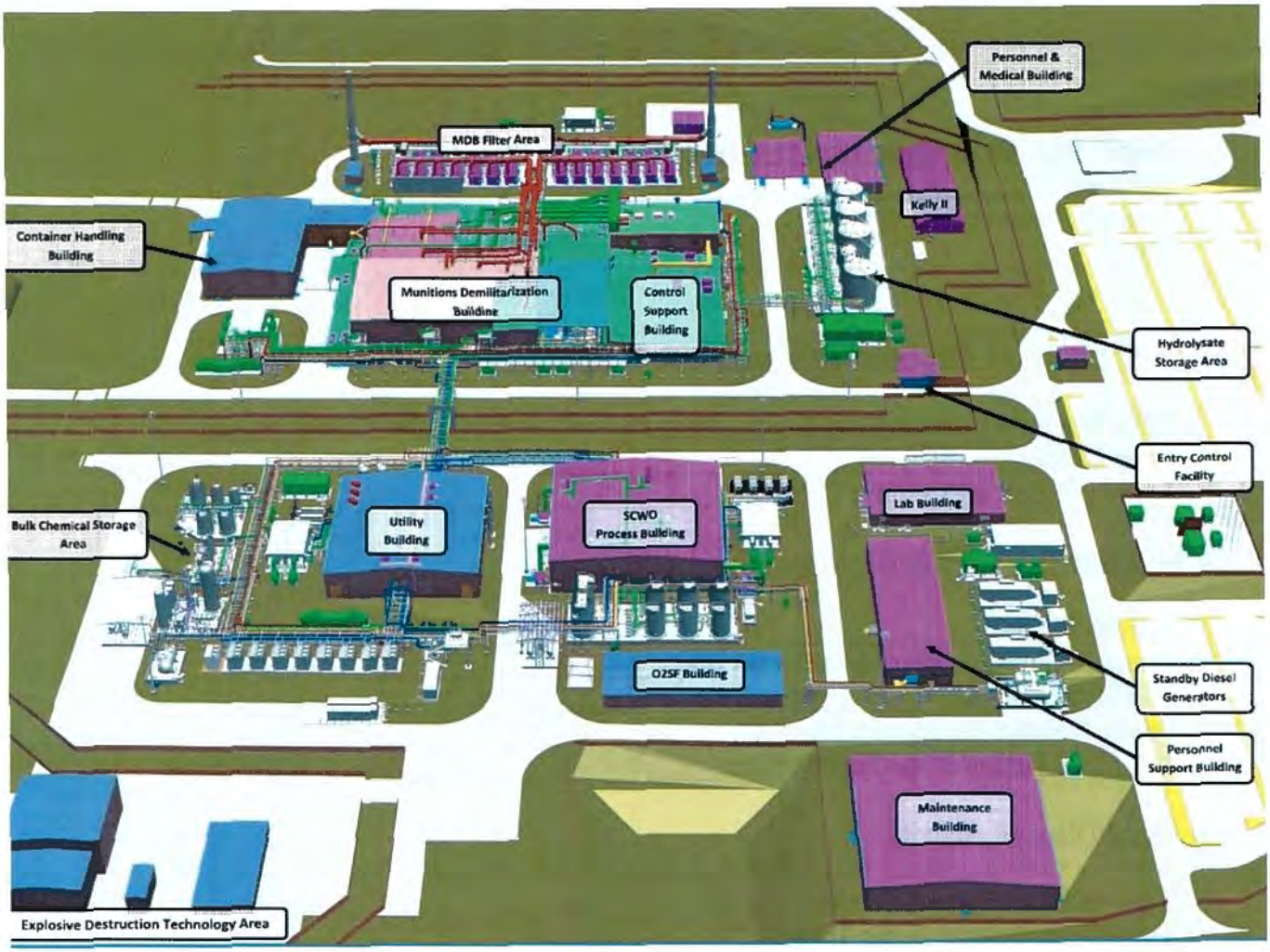
6. Samples shall be collected of the wastes generated during the treatment of the leakers (e.g., energetic hydrolysate, solids from the cyclone, liquid wastes from the scrubber). Analytical methods shall include chemical analysis of wastes for PCBs using gas chromatography. Gas chromatographic methods appropriate for the material being analyzed shall be used, including EPA Method 608, "Organochlorine Pesticides and PCBs" per 40 CFR Part 136, Appendix A;" EPA Method 8082A, Polychlorinated Biphenyls (PCBs) by Capillary Column Gas Chromatography" using "SW-846 OSW Test Methods for Evaluating Solid Waste". Solid residues/wastes shall be extracted by SW-846 Method 3540C prior to analysis for PCBs (e.g., residue from the cyclone).

7. Provisions must assure the following process elements are suitably monitored and recorded for all PCBs processed:
   a. Rate of PCBs (SFTs feed rate times the PCB concentration) fed shall be recorded for each batch treated in the MPT. In calculating the PCBs fed, the quantity of PCBs shall be based upon the number of SFT segments per batch, approximate weight of each segment (13.7 pounds), and estimated average PCB concentration (1,247 ppm);
   b. MPT operating temperature and the operating temperature of the TOX shall be continuously measured and recorded;
   c. Date and time of batch treatment;
   d. Quantity and concentration of PCBs in the treated materials, including process wastes and the method of treatment and/or disposal and location of the facility for each waste shall be documented;
   e. Name, address, and EPA identification number of the treatment and/or disposal facility receiving the process wastes; and
   f. The records must be compiled and maintained in accordance with the time(s) and location(s) as specified. Table 4 contains the operating parameters that shall be maintained during treatment of leakers.

Table 4 – Operating Design Parameters for BGCAPP Processes

		Units	GB			VX			Notes/ Methodology for Verification
			Min	*Max*	*Nominal*	*Min*	*Max*	*Nominal*	
Metal Parts Treater	Solids Residence Time	Minutes			≥15			≥15	
	Temperature of Solids in MPT	°F			≥1000			≥1000	
	Metal Parts Treater Temperature	°F	1305	1550	1450	1305	1550	1450	
	Metal Parts Treater Inlet Airlock, Main Chamber Outlet Airlock	% O_2			<3			<3	
	Metal Parts Treater Parts Exiting Cooling Chamber	°F			490			490	Further cooling on the cooling conveyors
Thermal Oxidizer	Operating Temperature	°F			2012 to 2372			2012 to 2372	2012 to 2372 during PCB waste processing
	Discharge Temperature	°F			1100			1100	
	Oxygen	% O_2	4.5			4.5			
	Residence Time	Seconds			2			2	

IV. FIGURE 1 - FACILITY MAP



V. APPENDIX A

SAMPLE THIRTY DAY NOTIFICATION FORM FOR CONDITION II.B.4

Company

Name: Blue Grass Chemical Agent-Destruction Pilot Plant
Address: _____
Contact Person Name _____
Phone: _____

Person, Organizational Affiliation/Title, and Phone Number for:

EPA Region 4 Contact: Terri Crosby-Vega 404-562-8497, ORCRPCBs@epa.gov
State Contact: _____
Local (Town/City/County) Contact: _____

Location Where Treatment Shall Occur:

Facility Name _____
Street Address or Other Identifier for Site: _____
Facility Manager: _____
Phone Number for Facility Manager: _____
Brief Description of the Facility/Site: _____

Nature of the Disposal Activity:

Type of PCB Disposal Process: _____
Type(s) of Material Being Treated: _____
Volume of PCB-Contaminated Material Being Treated: _____
Concentration of PCBs in the Material Before Treatment: _____
Date Treatment Operations are Expected to Begin: _____
Estimated Duration of the Treatment Operations (in Days): _____

VI. APPENDIX B

BGCAPP TSCA Approval Table of Deliverables

Deliverable Document	*Submittal Date*
Quarterly Reports	January 15, April 15, July 15, October 15 (starting year after Approval issued)
Demonstration Test Plan	≥12 months prior to when treatment of the rocket leakers begins
Quality Assurance Project Plan	≥12 months prior to when treatment of the rocket leakers begins
Waste Test Plan	≥12 months prior to when treatment of the rocket leakers begins
Sampling and Analysis Plan	≥12 months prior to when treatment of the rocket leakers begins
Air Emissions Test Plan	≥12 months prior to when treatment of the rocket leakers begins
Current Organization Chart	≥30 days prior to beginning the treatment of rocket leakers
List of Subcontracted TSDFs Accepting Wastes from the Non-leaking or Leaking Rockets	≥30 days prior to beginning the treatment of rockets
EPA Form 7710-53 to Office of Solid Waste	≥30 days prior to receiving any shipping and firing tubes holding agent-filled rockets
Final BGCAPP Closure Plan	Six months prior to initiating closure of BGCAPP